

# Physical Activity For Life

Staying Healthy  
Dr. Tia Lillie



## Current ACSM & CDC Recommendations

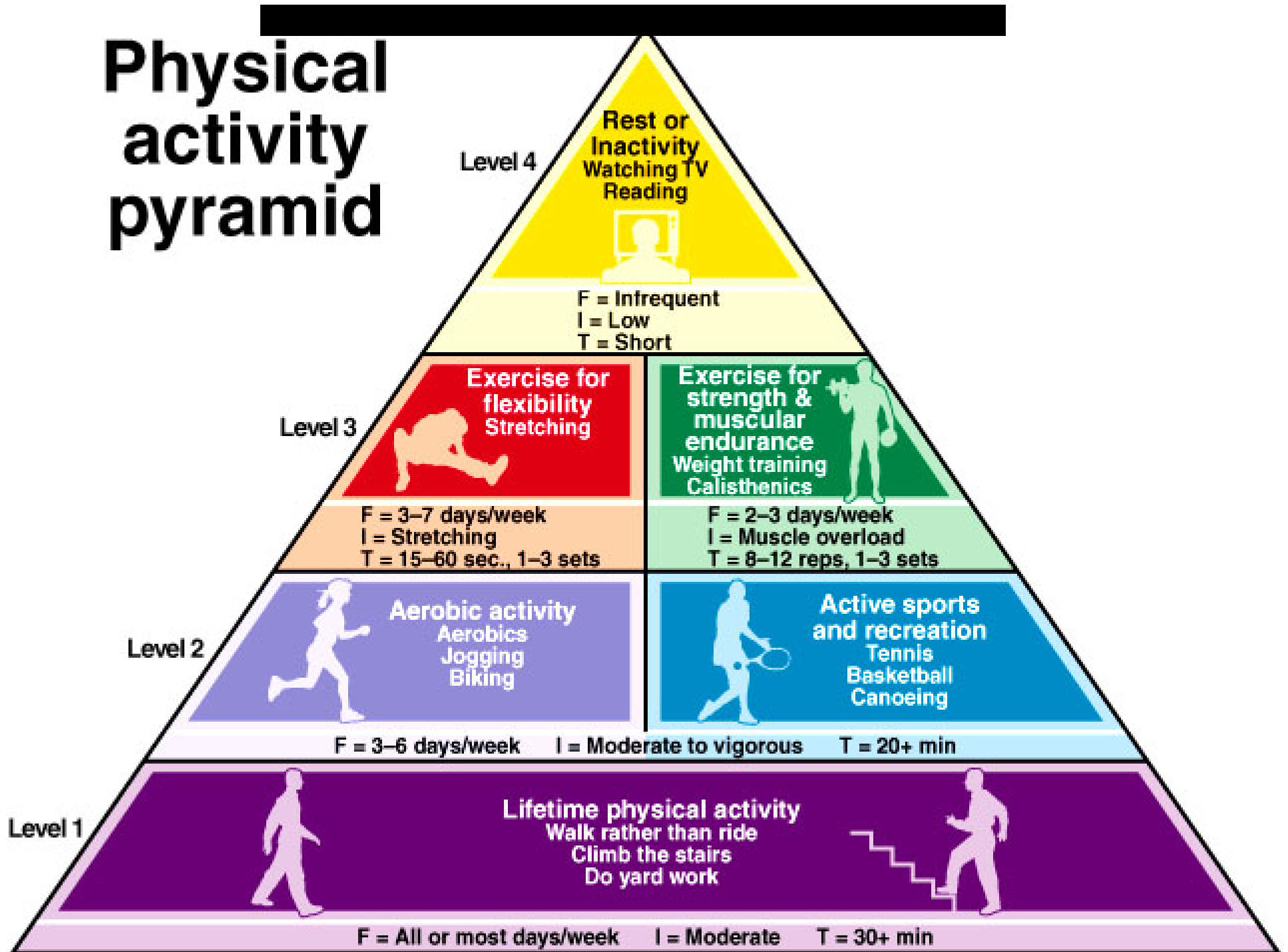
- “Every U.S. adult should accumulate 30 minutes or more of moderate-intensity physical activity on most, preferably all, days of the week”
- 150 Kcals.



**Surgeon General’s Report on Physical Activity and Health:**

**<http://www.cdc.gov.nccdphp/sgr/sgr.htm>**

# Physical activity pyramid



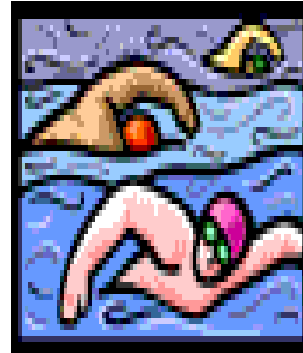
# Popular Activities

(Top 10 List from Surgeon General's Report)

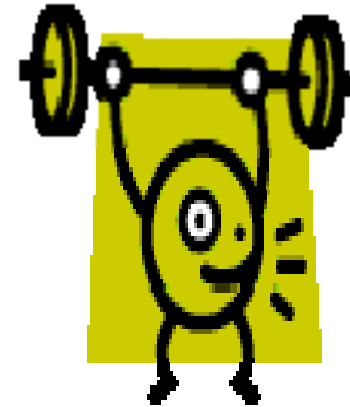
1. Walking



2. Gardening



3. Stretching



4. Resistance Exercises



5. Jogging



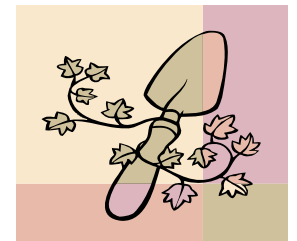
6. Aerobic Dance



7. Cycling



8. Stair Climbing



9. Swimming laps



10. Tennis

# Characteristics of Popular Activities

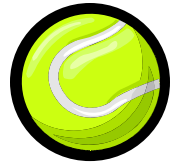
- Individual or small groups
- Self-promotional
- Little skill needed



# Popular Sport Activities

(Top 10 List from Surgeon General's Report)

1. Tennis



2. Bowling



3. Golf



4. Baseball/Softball

5. Racquetball



6. Basketball



7. Volleyball

8. Soccer



9. Football



10. Others

# Characteristics of Popular Sports

- Lifetime sports
- Primarily individual
- Wide levels of ability (handicap system)



# Self-Management Skills to Promote Interest in Activity

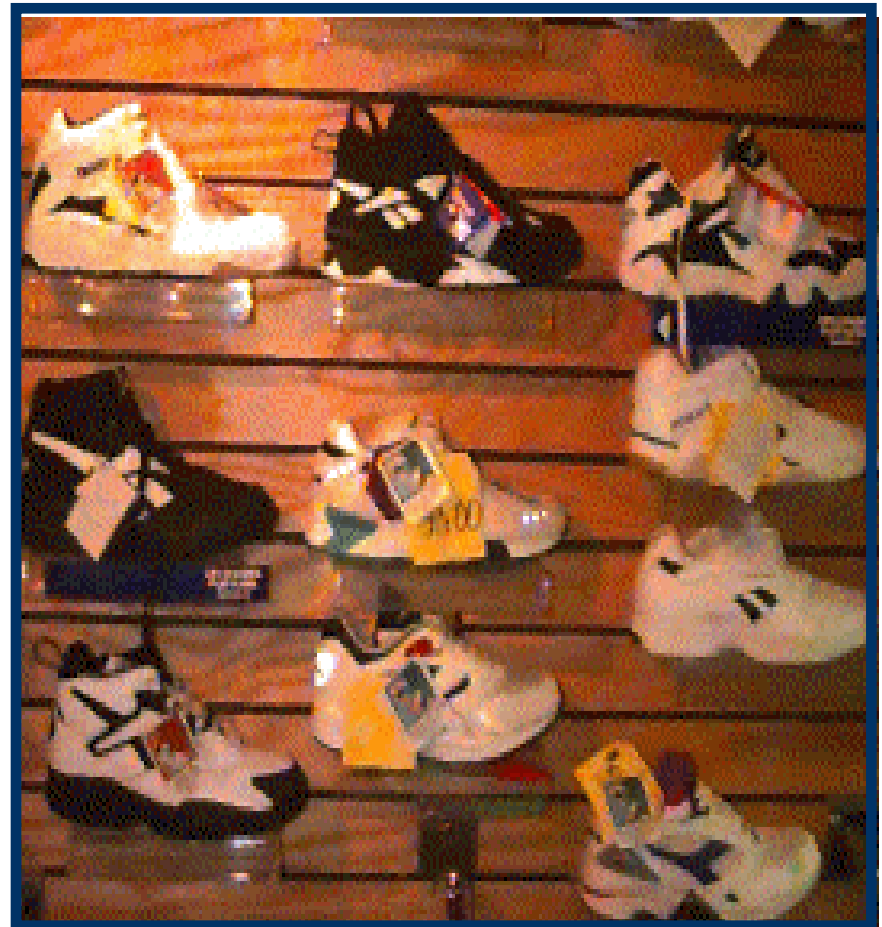
- Make efforts to improve skills & confidence in activity
- Choose non-critical and self-promotional activities (e.g. walking)
- Accept your self and your abilities and reduce level of self-criticism

# Ways To Incorporate More Physical Activity Into Ones Lifestyle

- Take the Stairs
- Park in the farthest parking spot
- Do a wall squat as you brush your teeth

# Wearing a Supportive Shoe is Important

- 1. Running
- 2. Court
- 3. Aerobic
- 4. Walking
- 5. Tennis
- 6. Cross trainers



# Dressing for Activity

- Wear loose comfortable clothing
- Light color
- Winter – layer clothing
- Wear Socks – prevent blister, absorbent
- Reflective Gear



# Warm-up / Cool-downs

- Warm-up - Prepares the body for exercise/physical activity (dynamic stretching).
- Cool-down – Helps the body to recover, returning the blood from the working muscles to the heart.
- Static stretching - at the end when your muscles are really warmed up (↑ flexibility).

# Principles of Physical Activity

- **Overload** = Doing more than normal! Progress @ a steady gradual increase
- **Specificity** = concentration within a specific area skill/health or specific muscle group
- **Reversibility** = Use it or lose it!
- **Dose-Response** = Larger doses of physical activity has greater benefits
- **Diminishing Returns** = The more you gain, the harder additional benefits are to achieve



**Safety**



# Microtrauma

- An injury so small it is not detected at the time it occurs
- Injury occurs from chronic repetitive movements
- Later in life, microtrauma becomes apparent = problems of tendonitis, bursitis, arthritis, or nerve compression



# Chronic Injury

- Many chronic injuries happen as a result of overtraining. This usually results from violating the law of progression and doing too much exercise or doing additional additional exercise without ample recovery



# Acute Injury

- A stress, strain or injury that produces an "ouch" at the time of injury or within several hours
- Common examples:
  - Sprains - ligaments
  - Strains - muscles/tendons
  - Fractures - bones



# Treatment of Injuries

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**R** Rest

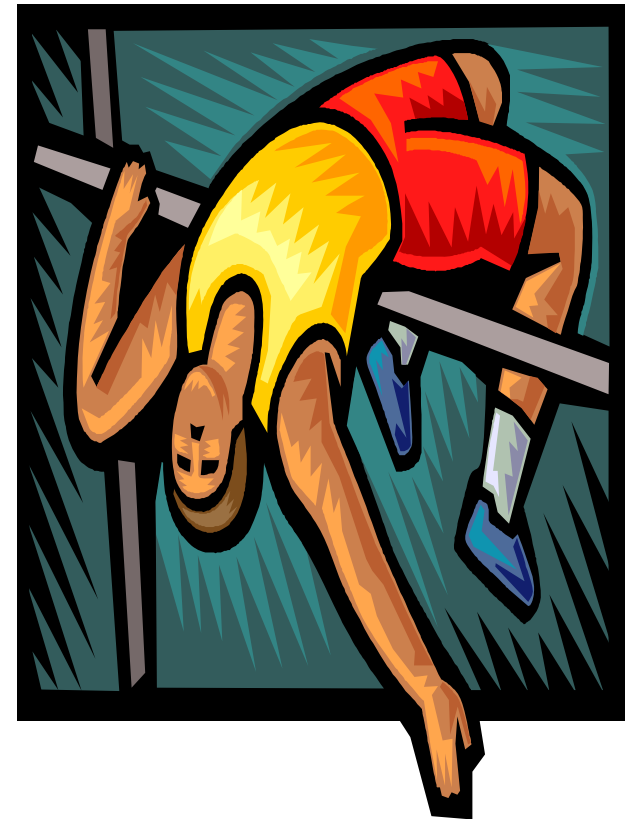
**I** Ice

**C** Compression

**E** Elevation

# Anatomical Terms

- **Hyperflexion:** bending a joint more than normal. Closing the angle at the joint
- **Hyperextension:** opening a joint angle (i.e., returning it past the normal anatomical position)



# Valsalva Maneuver

- Increased pressure in the thoracic region with resultant problems associated with subsequent fainting or dizziness



# Examples of Bad Exercises and Safer Alternatives

- Neck stretches
- Back stretches
- Abdominal exercises
- Hamstring exercises
- Shin exercises
- Bench press exercises
- Quadriceps exercise

## Specific Guidelines

- Stretch chest muscles, hip flexors, calf and hamstrings, lower back and medial thigh rotators
- Strengthen the abdominals and the shoulder muscles, upper and lower back extensors, shin muscles and lateral hip rotators

# General Exercise Guidelines

## ● Avoid

- Hyperflexion of knee or neck
- Hyperextension of neck, knee or low back
- Twisting or lateral force to the knee
- Holding the breath during exercises
- Stretching already long / weak muscles
- Shortening already short /strong muscles
- Passive neck stretches and any ballistic passive stretches

# Neck Stretches

**BAD**



**Full Neck Circling**

**GOOD**



**Partial Circling - Head Clock**

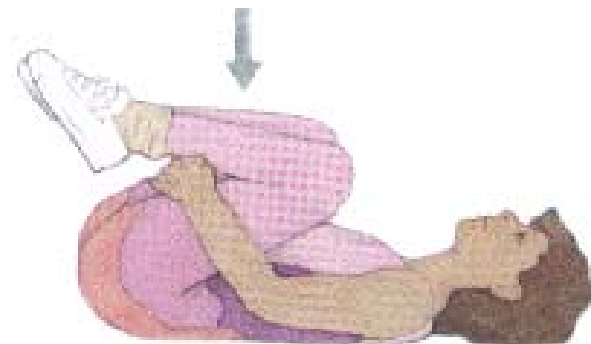
# Back Stretches

**BAD**



**Shoulder Stand Bicycle**

**GOOD**



**Leg Hug**

# Abdominal Exercises

**BAD**



**Double Leg Lifts**

**GOOD**



**Reverse Curl**

# Bench Press Exercise



**Bench Press - Back Arched**



**Bench Press - Knees Bent**

# References

- Corbin, C.B., Welk, G.J., Corbin, W.R., Welk, K.A. (2008). *Concepts of Physical Fitness: Active Lifestyles for wellness* (14thed.). New York, NY: McGraw-Hill Publishers.
- Beachle, T.R., & Earle, R.W. (Eds.). (2008). *Essentials of Strength Training and Conditioning*. Champaign, IL: Human Kinetics.